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EXAMINER

ROSSI, JESSICA

ART UNIT PAPER NUMBER

1733

DATE MAILED: 01/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/936,457

Applicant(s)

WHITWORTH, IAN JAMES

Examiner

Jessica L. Rossi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11/7/03, Election.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 12-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☒ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s). 8.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_. 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Election/Restrictions*

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

**Group I**, claim(s) 1-11, drawn to a method for the manufacture of an innerspring assembly.

**Group II**, claim(s) 12-21, drawn to an apparatus for use in the manufacture of an innerspring assembly.

**Group III**, claim(s) 22-25, drawn to an innerspring assembly.

2. The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The technical feature shared by Groups I-III is adjacent strings being joined by adhesive (see broadest claim 24). This common technical feature does not distinguish the claimed invention over the prior art, as shown by the teachings of Suenens et al. (US 5016305; Figures 6-7; column 4, line 57 – column 5, line 5). Therefore, Groups I-III do not relate to a single general inventive concept because they do not share a special technical feature that defines a contribution over the prior art. Accordingly, unity of invention between Groups I-III is lacking and restriction is proper.

3. During a telephone conversation with Mr. Cutitta on 1/8/04 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-11. Affirmation of this election must be made by applicant in replying to this Office action. Claims 12-25 are

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withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

### ***Specification***

4. This application does not contain an abstract of the disclosure as required by 37

CFR 1.72(b). An abstract on a separate sheet is required. Note copy of PCT abstract not sufficient.

5. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino

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acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 3, 6, and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 3, it is unclear what Applicant means by the first string being fed "longitudinally" and then displaced "transversely". What does Applicant intend for longitudinally and transversely to be with respect to? Does longitudinally refer to an axis of each spring comprising the string or an axis of the entire string? Does longitudinally refer to a direction of travel? Does transversely refer to a position of the string or does it refer to a direction of travel? Applicants are asked to clarify.

Regarding claim 6, it recites the limitation "the movements" in line 1. There is insufficient antecedent basis for this limitation in the claim. It is suggested to change this phrase to --movements--.

Regarding claim 11, it is unclear as to how the applicators can be fixed and the first string displaced when this claim depends from claim 9, which states that movement of the applicators relative to the first string takes place. Applicants are asked to clarify. It is suggested to cancel claim 11 since claim 8 already sets forth similar limitations.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-2, 5, and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Mossbeck et al. (US 6143122).

With respect to claim 1, Mossbeck is directed to a method for the manufacture of an innerspring assembly 10 (column 2, lines 50-51). The reference teaches positioning a first string 12a of pocketed coil springs in juxtaposition with a plurality of adhesive applicators 30 disposed in mutually fixed relation on an axis parallel to a longitudinal axis of the first string (Figure 3 – note only two applicators depicted but can be more; column 5, lines 10-11; **column 6, lines 50-54**), applying adhesive from the applicators to the first string (column 5, lines 10-17), and bringing the first string into adhesive contact with a second string 12b (Figure 1D; column 6, lines 32-45).

Regarding claim 2, the reference teaches simultaneously applying adhesive from the applicators (column 6, lines 50-54).

Regarding claim 5, the reference teaches the second string being processed immediately before the first string in the same manner as the first string (Figure 1D; column 5, lines 10-15).

Regarding claim 9, the reference teaches dispensing adhesive while moving the applicators relative to the first string (Figure 3; column 6, lines 32-54).

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***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mossbeck et al. and further in view of the collective teachings of Eto (US 5792309) and St. Clair (WO 96/07345).

Regarding claim 6, Applicants are directed to paragraph 9 above for a complete discussion of Mossbeck. The reference teaches the process being fully automatic (column 2, lines 55-56) but is silent as to movements of the first string being brought about by suitable mechanical means using electrical, hydraulic, or pneumatic power.

It is known in the art to adhesively bond strings of pocketed coil springs using a fully automated process wherein motor driven conveyors are used to move the strings through different stages of the process, as taught by Eto (column 3, lines 39-41 and 55-56; column 4, lines 12-18; column 5, lines 47-49). It is also known in the art to adhesively bond a first string to a second string using a pneumatically powered pushing device, as taught by St. Clair (Figure 5C; p. 15, lines 16-24).

Therefore, it would have been obvious to the skilled artisan at the time the invention was made to move the first string of Mossbeck using mechanical means such as motor-driven conveyors and a pneumatically powered pushing device because such is known in the art, as

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taught by the collective teachings of Eto and St. Clair, wherein such allows for a continuous process.

The skilled artisan would have appreciated that the conveyor motor would have to be driven by some type of power source while also appreciating that electrical, hydraulic, and pneumatic power sources for driving motors are well known and conventional. Therefore, it would have been obvious to the skilled artisan to use any one of these sources to power the motor because only the expected results would have been achieved.

12. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mossbeck et al. and further in view of Suenens et al. (US 5016305).

Regarding claim 7, Applicants are directed to paragraph 9 above for a complete discussion of Mossbeck. The reference is silent as to the adhesive being a hot melt. It would have been obvious to use a hot melt for the adhesive of Mossbeck because such is known in the art for joining strings of pocketed coil springs wherein the hot melt is sprayed onto the strings via an applicator, as taught by Suenens (column 2, line 66 – column 3, line 3), and such an adhesive results in a flexible coating (Suenens; column 2, lines 66-67).

13. Claims 1-5 and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suenens et al. in view of Mossbeck et al.

With respect to claim 1, Suenens is directed to a method for the manufacture of an innerspring assembly (column 2, lines 17-18). The reference teaches positioning a first string 1 of pocketed coil springs in juxtaposition with an adhesive applicator 11 (Figure 6), applying adhesive from the applicator to the first string (column 4, lines 57-66), and bringing the first string into adhesive contact with a second string (Figure 7; column 6, line 67 – column 7, line 4). The



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reference is silent as to the adhesive being applied from a plurality of applicators disposed in mutually fixed relation on an axis parallel to a longitudinal axis of the first string.

It is known in the art to apply adhesive to a string of pocketed coil springs using a plurality of applicators disposed in mutually fixed relation on an axis parallel to a longitudinal axis of the string, as taught by Mossbeck (see paragraph 9 above for complete discussion).

Therefore, since Suenens teaches the applicator being stationary or moveable (column 4, lines 60-64; column 5, lines 15-18), it would have been obvious to the skilled artisan at the time the invention was made to use a plurality of applicators disposed in mutually fixed relation on an axis parallel to a longitudinal axis of the first string of Suenens to apply adhesive thereto because such is known in the art, as taught by Mossbeck, wherein a plurality of applicators offers the advantage of avoiding a single applicator moving over a limited range with great speed or high frequency thereby minimizing the potential maintenance problems for the system while increasing the precision and accuracy of applying the adhesive (Mossbeck; column 3, lines 21-28).

Regarding claim 2, Mossbeck teaches simultaneously applying adhesive from the applicators (column 6, lines 50-54).

Regarding claim 3, Suenens teaches feeding the first string longitudinally and then displacing it transversely into juxtaposition with the adhesive applicator (Figures 6-7).

Regarding claim 4, Suenens teaches tipping the first string into an upright position such that the surface of the first string to which adhesive has been applied is brought into contact with the surface of the second string (Figure 7; column 4, line 67 – column 5, line 4).

Regarding claim 5, Suenens teaches the second string having immediately beforehand been processed in the same manner as the first string (column 5, lines 2-4).

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Regarding claim 7, Suenens teaches the adhesive being a hot melt (column 2, lines 66-68).

Regarding claim 8, Suenens teaches the applicator can be in a fixed, stationary position relative to the first string (column 4, lines 60-64).

Regarding claim 9, Suenens alternatively teaches moving the applicator relative to the first string (column 5, lines 15-18).

Regarding claim 10, Suenens alternatively teaches the first string being stationary and moving the applicator (column 5, lines 15-18).

Regarding claim 11, Suenens teaches the applicator being fixed and the first string being displaced (column 4, lines 60-64).

14. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suenens et al. and Mossbeck et al. as applied to claim 1 above, and further in view of the collective teachings of Eto, Suenens et al. (EP 421495), and Mossbeck (US 6159319).

Regarding claim 6, Suenens '305 teaches positioning the first string using a conveyor and tilting the first string to bring it into contact with the second string, but is silent as to these movements being brought about by mechanical means using electrical, hydraulic, or pneumatic power.

It is known in the art to adhesively bond strings of pocketed coil springs using a fully automated process wherein motor driven conveyors are used to move the strings through different stages of the process, as taught by Eto (column 3, lines 39-41 and 55-56; column 4, lines 12-18; column 5, lines 47-49). It is also known in the art to bring a first string into contact with a second string to adhesively bond the same using a tilting device that receives the first

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string from a conveyor, as taught by Suenens '495 (column 2, lines 4-15). It is also known in the art to bring a first string into contact with a second string to adhesively bond the same using a pneumatically powered tilting device, as taught by Mossbeck '319 (column 6, lines 56-61).

Therefore, it would have been obvious to the skilled artisan at the time the invention was made to move the first string of Suenens '305 using mechanical means such as motor-driven conveyors and a pneumatically powered tilting device because such is known in the art, as taught by the collective teachings of Eto, Suenens '495, and Mossbeck '319, wherein such allows for a continuous process.

The skilled artisan would have appreciated that the conveyor motor would have to be driven by some type of power source while also appreciating that electrical, hydraulic, and pneumatic power sources for driving motors are well known and conventional. Therefore, it would have been obvious to the skilled artisan to use any one of these sources to power the motor because only the expected results would have been achieved.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **571-272-1223**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard D. Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Jessica L. Rossi  
Patent Examiner  
Art Unit 1733